

Spheres of Influence

Environmental Health: The Global Report Card, 1994

With 1994 coming to a close, governments, industry, the environmental community, and organizations that track worldwide trends are assessing the status of the world's major environmental health issues. In its recently published review of global social and economic trends, *Vital Signs, 1994*, the Washington-based Worldwatch Institute reports that although the planet has experienced some general improvements in environmental health conditions (for example, the continuing rise in the average life span worldwide), it still faces many serious environmental problems.

"We're making progress, but it's not enough," explained Lester Brown, the founder of the Worldwatch Institute. "If we look at food production and population growth, for example, we see that food production is increasing but not as fast as population."

According to Worldwatch, signs the earth isn't doing so well include the continuing environmental problems of deforestation, decline of fish stocks, loss of bird species, and the rise in the levels of carbon dioxide. "It hasn't been a banner year for the environment," agrees Antony G. Marcil, the chief executive officer of the World Environment Center, an organization that works for sustainable development. "We haven't turned the corner on any major environmental issue."

In fact, this year's U.S. Congress failed to pass a single piece of environmental legislation, refusing to reauthorize the Safe Drinking Water Act or Superfund reforms. This development is particularly significant, say environmentalists, because internationally many look to the United States as the global leader in protecting the environment and human health. In 1994, however, some positive developments did occur in several of the world's major environmental health arenas. Treaties were negotiated and ratified, conferences held, and major pieces of legislation introduced to address concerns such as population, biodiversity, global warming, environmental justice, chemical and pesticide use, and global trade and the environment.

Population

Last September, delegates from 180 countries attended a United Nations-sponsored population conference in Cairo and agreed to a 20-year plan of action that breaks new ground on one of the world's most contro-

versial issues. For the first time, a major international conference addressed the topics of economic development, empowerment of women, and the protection of the environment through controls on population.

In *Vital Signs, 1994*, Worldwatch reports that the world's population is growing at a rate of 90 million people a year. The plan hammered out in Cairo is designed to stabilize the world's population at 7.8 billion by the year 2015.

To slow the world's population growth, conference delegates agreed to spend \$17 billion a year by the end of the century on birth control, education, and other programs. Two-thirds of the amount would come from industrialized countries and one-third from developing nations. "That hasn't happened before," says Robert Engelman, director of Population Action International. "The financial commitment shows that almost every country in the world is on board to work towards slowing the world's population through human development policies."

The plan, which isn't binding but is designed to provide guidelines for countries, did make some concessions to the Vatican and other religious groups attending the Cairo conference who opposed the agreement. The planning document contains the following language, for instance: "reproductive health should conform to the laws and religious, ethical, and cultural values of the country." However, the document also urges that "unsafe abortion be treated as a major public health concern."

"The population conference was a big step forward," says Jane Delung, director of the Population Resource Center. "Even the Vatican now agrees that population growth poses a challenge to the world. How do we deal with this issue? I think there's now a consensus that the problem of population growth has no one solution."

Biodiversity

If current trends continue, an estimated 10–25% of the planet's biological inheritance will be gone in 25 years, largely disappearing from developing nations, where most species of plant and animal life are found. This past April, scientists from the Center for Population Biology at the Imperial College in Ascot, England, reported in the journal *Nature* that there is strong

evidence that ecosystems work better the more species they contain.

On 4 June 1993, 170 countries including the United States signed the comprehensive agreement known as the Convention on Biological Diversity, an unprecedented commitment to stem the loss of the earth's species and their habitats and ecosystems. "The convention is an enormous stride forward to protect the world's plant and animal species," explains Michael Kosztarab, professor emeritus of entomology at Virginia Tech University and an expert in biodiversity.

The biodiversity convention calls for all parties ratifying the treaty (more than 50 countries have done so) to adopt sound national conservation plans, encourage the sustainable use of biodiversity, and promote sharing of benefits through international cooperation and the productive use of genetic resources.

During 1994, the treaty has been subject to extensive review and discussion among U.S. government agencies, the U.S. Congress, and commercial and environmental interests. U.S. industries with an economic stake in genetic diversity, including drug, seed, and biotech firms, as well as environmentalists, are urging Congress to ratify the agreement.

Global Warming

The Framework Convention on Climate Change, one of the key documents produced at the 1992 U.N.-sponsored Earth Summit in Rio de Janeiro, came into force 21 March 1994. The treaty states that countries voluntarily adopt their own strategies to alleviate the effects of climate and the impact of global warming. The treaty recognizes that different countries bear different responsibilities in repairing the damage done to the ozone in relation to the amount they contribute to its depletion.

By last September, countries party to the treaty were to report to the secretariat of the Climate Change Convention on the amounts of emission of greenhouse gases they produce and their plans for dealing with global warming. Japan has already reported at an intergovernmental negotiating committee meeting of the Climate Change Convention held in Geneva last July that it would achieve its targets for curbing emissions of carbon dioxide and greenhouse gases. Other countries submitting reports so far include Canada, which expects a 10% increase in its overall carbon dioxide emissions, and Britain, which asserted that it can stabilize its emissions.

"The U.S. is moving aggressively to reduce emissions in a effective way by the year 2000, but without creating any new bureaucracies," says John Schlaes, executive director of the Global Climate Coalition, which represents most of the manufacturing sectors in the United States on the global warming issue. "As a result, industry has been very aggressive in developing a wide range of volunteer programs to deal with the issue." Adds William O'Keefe, executive director of the American Petroleum Institute, "The fact remains that emissions are going to continue to rise, so the challenge is to find ways to deal with the global environment while still sustaining our economic viability."

The business sector may be upbeat about the possibilities for dealing with global warming, but several environmental groups have criticized the climate convention, saying that its requirements are insufficient to correct the problem of greenhouse gas emissions and ozone depletion.

Environmental Justice

A major international agreement concerning environmental justice was reached March 25 when most industrialized countries agreed to stop exporting hazardous wastes to poor and developing countries, including Eastern Europe and the former Soviet Union. The ban is immediate for wastes bound for final disposal, and it takes effect at the beginning of 1998 for all hazardous wastes destined for recycling or recovery operations. "The pact is a landmark victory not only for environmentalists around the world but also for legislators in developing countries, who have been trying to get western industrialized countries to stop transporting toxic waste to their countries," explains Heather Spalding of Greenpeace's Toxic Waste Campaign.

The environmental justice meeting brought together countries that had signed the 1989 Basel Convention treaty governing the export of dangerous waste. Although U.S. representatives attended the March conference, they did so only as observers and the United States abstained from signing the pact.

While Greenpeace and other environmental groups praise the pact, other observers express doubt that it can be effectively enforced, especially given the lack of support by the United States. No exact statistics exist, but sources estimate that Europe and North America export two million tons of toxic waste each year to the Third World.

On the U.S. environmental justice front, President Clinton signed an executive order requiring federal agencies whose policies affect the health of the environ-

ment to identify and address "disproportionately high and adverse human health or environmental effects" on minority and low-income populations. This requirement will affect almost every government agency in some way or another.

"This is a major development," says Charles Lee, research director of the United Church of Christ's Commission on Racial Justice. "The federal government is showing its willingness to identify and develop strategies to deal with environmental justice."

Chemicals and Pesticides

Currently, the issue of the use of chlorine is one of the world's hottest and most contentious environmental health debates. Greenpeace has organized a campaign to lobby for the total worldwide ban of chlorine, while industry, which is led by the Chlorine Institute and giant multinationals such as Dow Chemical Company, is marshalling support to keep chlorine on the market. Billions of dollars are at stake.

In September the EPA released a draft reassessment of dioxin and chlorinated compounds that is expected to intensify the debate because it affirms possible human health and environmental risks from dioxins. "Greenpeace feels vindicated," explains Lisa Finaldi, the international coordinator of Greenpeace's Chlorine-Free Campaign. "The EPA study verifies what we've been saying about chlorinated compounds."

The chlorine industry disputes Greenpeace's claim. "The EPA has said this is not the time to panic, and we agree," says William Carroll, a scientist with the Chlorine Chemistry Council of the Chemical Manufacturers Association. Carroll adds, "We've agreed to reduce emissions of dioxins on the basis of comparative risk assessment. We want to be part of the solution."

Seeking a solution for the problem of exposures to pesticides, the Clinton administration presented a proposal to Congress in April that would amend two laws controlling pesticides in food: the Federal Insecticide, Fungicide, and Rodenticide Act and the Federal Food, Drug and Cosmetic Act. The proposal's recommendations include a ban on the export of pesticides that are currently banned for use in the United States and a reduction in the amount of pesticide residues allowed to remain on food. But environmental and industry sources are skeptical of the proposal's success because it lacks support by both groups.

World Trade and the Environment

In 1994, two international trade agreements, The North American Free Trade

Agreement (NAFTA) and the General Agreement on Tariffs and Trade (GATT), have brought increasing attention to the link between trade and the environment. Last January, about a week after NAFTA went into effect, the U.S. Supreme Court rejected an appeal brought by the Sierra Club and Public Interest, a public advocacy group, which argued that the White House should have been required to prepare an environmental impact statement (EIS) for NAFTA.

Public Citizen expresses disappointment with the Supreme Court decision, but says it may file a similar lawsuit pressing for an EIS for the pending GATT global trade deal, which involves 100 countries. On 1 January 1995 GATT becomes the World Trade Organization agreement (WTO). Several national legislatures, including that of the United States, must still ratify the WTO. "The issue is so important that we aren't going to give up," says Chris McGinn, deputy director of Public Interest's trade campaign. "It's appropriate to have EISs for free trade agreements because they are done for every other major legislative initiative."

GATT opponents argue that the WTO would limit the U.S. Congress's ability to legislate in the nation's best interest. For example, other countries would be able to challenge landmark environmental laws like the Clean Water Act and the Marine Mammal Protection Act.

WTO supporters dispute this contention. "No international laws will be forced on the U.S. Congress," says Julian Gaspar, director of the Center for International Business Studies at Texas A&M University. "We will still have our sovereignty. WTO opponents are overreacting."

The Year Ahead

As we move into 1995, environment watchers will be monitoring these and other issues and expect the following developments to yield good results for environmental health:

- All prospective WTO members have until July 1995 to approve or disapprove of the WTO agreement. Several Latin American countries, most notably Chile, will be negotiating with the United States in the hope that they too can join NAFTA. Environmentalists are expected to object to any move to expand NAFTA's membership.
- A U.N. Environmental Programme meeting in November in Washington, DC, will bring together representatives from 100 countries to talk about chemical discharges. "We plan to push the chlorinated compound issue at the meeting," reveals Greenpeace's Finaldi.

- In April 1995, the U.N. Commission on Sustainable Development will discuss the progress made with respect to the Biodiversity Treaty. "Each country that attends will try to come up with some kind of consensus providing criteria and indicators on what's sustainable forestry," says John Heisenbuttel, assistant vice president of Forest Resources for the American Forest and Paper Association.
- Environmental justice organizations will continue to lobby for the U.S. Senate Public Health Equity Act of 1994. The act guarantees all citizens, irrespective of

race, color or national origin, the right to work and live in places free from toxic chemicals. The organizations also say they will work to ensure that the National Symposium on Health Research addresses the environmental justice issue and that strong recommendations come out of the Environmental Justice Advisory Council deliberations.

- The Cairo population conference has given impetus to two future U.N. conferences: the World Summit for Social Change in Copenhagen in March 1995 and the Fourth World Conference on Women in Beijing in September. The

conferences are expected to address many of the issues on the agenda in Cairo.

Sources hope the report card for 1995 will show a marked improvement in efforts to heal environmental wounds and prevent future damage to human health and the environment. "It's going to be busy year, but we expect our hard work to pay off," says Antony Marcil.

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Reviews in Environmental Health, 1994

Environmental Health
perspectives
Supplements

Human Developmental Neurotoxicity

Volume 102, Supplement 2, contains reviews of several aspects of environmental health as well as the proceedings of Learning Disabilities Association Pre-conference Symposium, "Tots and Toxins: Altered Brains," held February 24, 1993, in San Francisco, California. The main objective of the meeting was to provide a forum where researchers and participants from diverse backgrounds could present scientific data, exchange views, and examine the difficult issues related to developmental neurotoxicity. Sponsors for the symposium were the Learning Disabilities Association Research Committee, the National Institute of Environmental Health Sciences, the United States Environmental Protection Agency and the National Foundation for Brain Research.

Selected reviews include:

Zinc: Health Effects and Research Priorities for the 1990s

by C.T. Walsh et al.

Summary of the National Toxicology Program Benzidine Dye Initiative

by D.L. Morgan et al.

Regulation of Antioxidant Enzymes in Lung after Oxidant Injury

by T. Quinlan et al.

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